DOCUMENT RESUME

ED 138 158 HE 008 811

TITLE	1976 High School Eligibility Study.
INSTITUTION	California State Postsecondary Education Commission, Sacramento.
PUB DATE	13 Dec 76
NOTE	46p.; Appendix B may be marginally legible due to small type
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	Academic Records; *Academic Standards; *Admission Criteria; College Admission; College Freshmen; Grade Point Average; Higher Education; *High School Graduates; *Master Plans; State Colleges; State Surveys; State Universities; *Statewide Planning
IDENTIFIERS	*California; California State University and Colleges; *Class Standing; High School Eligibility Study; University of California

ABSTRACT

The 1976 High School Eligibility Study is the fourth in a continuing series of studies performed to provide data to the University of California and the California State University and Colleges so they can recalibrate their admission standards for first-time freshman students under the guidelines established under the Master Plan for Higher Education (1960). The Master Plan urges the University of California to draw its first-time freshman class from the top 12 1/2 percent of the high school graduating class; the state university and colleges from the top one-third. A random sample of 1974-75 public high school graduate transcripts was evaluated in terms of each segment's admission standards. The findings indicate that 14.84 percent of the graduates would have been eligible for admission as first-time freshman students at UC and 34.96 percent at the state university and colleges. These figures are generally consistent with the findings of the 1961 and 1966 studies and indicate that the gradually rising grade point averages in California's public high schools in recent years have not resulted in a "ballooning" of segmental eligibility rates. Recommendations are offered for adjusting segmental admission requirements, for developing the 1981 High School Eligibility Study, and for reviewing the 1960 Master Plan. (LBH)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED138158

Resolution 24-76

Concerning the 1976 High School Eligibility Study

WHEREAS, Section 22712(18) of the Education Code directs the California Postsecondary Education Commission to:

> Review all proposals for changes in eligibility pools for admission to public institutions and segments of postsecondary education and . . . make recommendations to the Legislature, Governor, and institutions of postsecondary education.

and,

WHEREAS, The Report of the Legislative Analyst for the Budget Bill, Fiscal Year 1976-77, recommended that the Commission:

> Study the current admission standards of the University of California and the California State University and Colleges in relation to admission guidelines established in the Master Plan for Higher Education and report its findings and recommendations to the Joint Legislative Budget Committee by December 1, 1976.

and,

WHEREAS, The Commission's Standing Committee on Information Systems has voted to recommend to the California Postsecondary Education Commission adoption of the staff report on high school eligibility; now, therefore, be it

RESOLVED, That the California Postsecondary Education Commission adopts the 1976 High School Eligibility Study's conclusions and recommendations, and be it further

RESOLVED, That the report be transmitted formally to the Legislature, the Governor, the Board of Regents of the University of California, and to the Trustees of the California State University and Colleges for their consideration.

Adopted
December 13, 1976

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CALIFORNIA POSTSECONDARY
EDUCATION COMMISSION

1976 HIGH SCHOOL ELIGIBILITY STUDY

December 13, 1976

TABLE OF CONTENTS

Page

PREFACE

I. CONCLUSIONS 1

The University of California 1
The California State University and Colleges 1
General 1

II. RECOMMENDATIONS 3

III. BACKGROUND 4

IV. METHODOLOGY 6

Population Definition 6
Sampling Procedure 6
Sampling Problems 7
Response Rate 10
Transcript Processing 11
Procedures Used to Attempt to Validate the High School Graduate Sample 14
Validation of Graduate Grade Point Average 16
Validation of College Entrance Examination Test Data . . . 16
Eligibility Computations - The Conceptual Framework 19

V. FINDINGS 23

Eligibility Computations for the University of California. 23
Eligibility Computations for the California State University and Colleges 24
Sample Confidence Limits and Tolerance 25
Sample Bias 25

APPENDICES

Appendix A - A Summary of the 1955, 1961, and 1966 High School Eligibility Studies

Appendix B - Excerpt from the University of California's Undergraduate Admissions Packet Describing Freshman Eligibility Requirements

Appendix C - Excerpt from the California State University and Colleges' Applications and Information Brochure Describing Freshman Eligibility Requirements

Appendix D - Organizations and Individuals Contacted by Commission Staff to Obtain Grade Point Average Data for 1974-75 High School Graduates

FIGURES

		Page
Figure I	Summary of High School Diploma Winners Included in the 1966 and 1976 High School Eligibility Studies	6
Figure II	A Summary of the Adjustments Made to the Graduate Sample Due to the Omission of Graduates and Oversampling.	11
Figure III	Schedule of Transcript Transmittal to the University of California and the California State University and Colleges	13
Figure IV	Schedule of Receipt of Transcript Evaluation Data from the University of California and the California State University and Colleges.	14
Figure V	Validation Procedures Used.	15
Figure VI	University of California Admission Categories	22
Figure VII	Summary of Graduate Eligibility As a Function of Eligibility Category for the University of California	23
Figure VIII	Distribution of Eligible Graduates by Adjusted Grade Point Average for the University of California.	23
Figure IX	Distribution of Eligible Graduates by "A to F" Grade Point Average for the University of California.	24
Figure X	Summary of Graduate Eligibility As a Function of Eligibility Category for the California State University and Colleges	24
Figure XI	Distribution of Eligible Graduates by Adjusted Grade Point Average for the California State University and Colleges	25

PREFACE

The 1976 High School Eligibility Study is the fourth in a continuing series of studies performed to permit the University of California and the California State University and Colleges to recalibrate their admission standards, for first time freshman students, to the guidelines established under the Master Plan for Higher Education (1960). Under the Master Plan the University of California is urged to draw its first time freshman class from the top 12 1/2% of the high school graduating class and the California State University and Colleges is urged to draw from the top 33 1/3%.

To perform this study, a random sample of 1974-75 public high school graduate transcripts was evaluated in terms of each segment's admission standards and a determination was made of the number of students in the sample that would have been eligible to attend one or the other or both of the segments. The number of high school graduates in the random sample determined eligible at each segment was then extrapolated to predict the percent of the 1974-75 public high school graduating class that would have been admitted, if all had applied.

The findings of this report indicate that 14.84% of the public high school graduates in 1974-75 would have been eligible for admission as first time freshman students at the University of California, and 34.96% at the California State University and Colleges. These figures, while slightly higher than those suggested in the 1960 Master Plan, are generally consistent with the findings of the 1961 and 1966 studies and indicate that the gradually rising grade point averages experienced by California's public high schools in recent years have not resulted in a "ballooning" of segmental eligibility rates.

Eligibility studies, while useful in analyzing segmental admission standards, provide only limited insight into the reality of applicant admission patterns and bear only a nominal relationship to first time freshman enrollments.

For example, two-thirds of the high school graduates in the Commission's sample had grade point averages below 3.0, while only 8% of the first time freshman applicants to the University of California for the fall 1975 term had grade point averages below 3.0. The difference between the indicators of California's high school graduates and actual applicants to the University of California clearly indicates that factors other than eligibility percent are influencing application patterns to both the University of California and the California State University and Colleges. These factors have traditionally been lumped under the term "self selection;" a term interpreted to mean that applicants preselect the institutions (and segments) to which they

Applications, Admissions, and Enrollments for the University of California and the California State University and Colleges

	University of California[1]					California State University and Colleges[2]				
	1971-72	1972-73	1973-74	1974-75	1975-76	1971-72	1972-73	1973-74	1974-75	1975-76
1. Applications	Not Available		22,844	20,719	21,126	57,637	58,580	53,597	52,938	53,781
Percent of high school graduating class[3]	Not Available		8.0	7.2	6.7	19.9	20.3	18.9	18.3	17.1
2. Admissions	Not Available		18,742	19,028	19,483	34,890	38,879	38,000	38,809	38,480
Percent of high school graduating class[3]	Not Available		6.6	6.6	6.2	12.0	13.5	13.4	13.4	12.3
Percent of applications	Not Available		82.0	91.8	92.2	60.5	66.4	70.9	73.3	71.5
3. Enrollment	Not Available		13,317	13,390	14,338	22,994	25,317	25,565	26,609	27,043
Percent of high school graduating class[3]	Not Available		4.7	4.6	4.6	7.9	8.8	9.0	9.2	8.6
Percent of applications	Not Available		58.3	64.6	67.9	39.9	43.2	47.7	50.3	50.3
Percent of admissions	Not Available		71.1	70.4	73.8	65.9	65.1	67.3	68.6	70.3
Total High School Graduates[3]	289,861	288,134	283,968	289,259	314,085[4]	289,861	288,134	283,968	289,259	314,085[4]

1. California public high school graduates only (special and regular admissions)
2. Includes approximately 3-4% non-California residents (special and regular admissions)
3. Total graduates as reported by Bureau of School Apportionments and Reports, California State Department of Education
4. Projected

apply for admission on the basis of a variety of factors: factors such as institutional program offerings, geographic location, student aid opportunities, academic preparation requirements, and personal career goals. Eligibility studies of this type cannot and do not provide an indication of the extent of the "self selection" phenomenon, and, to this extent, misstate "true" segmental eligibility rates.

There is a second important point: neither segment has ever enrolled the percent of the high school graduating class to which it is "entitled" under the 1960 Master Plan. The chart appearing on the facing page clearly illustrates this point.

Note that both the University of California and the California State University and Colleges have consistently enrolled approximately the same proportion of the high school graduating class over a period of years in which high school grade point averages have experienced marked increases. Once again the "self selection" phenomenon must be cited as the single greatest contribution to the enrollment stabilization that has taken place during these years of change.

Two major points remain to be addressed. First, the 1976 High School Eligibility Study is a technical document designed to respond to a technical problem and, second, a supplementary report illustrating additional technical material related to the Study will be published early in 1977 to aid segmental planners as they consider new admission standards.

I. CONCLUSIONS

The University of California

1. 14.84% of the high school graduates in the University's sample were determined to be eligible to attend the University of California.

2. Of the graduates determined eligible, 98.65% were determined eligible exclusively on the basis of a 3.10 or above "A to F" grade point average, while the remaining 1.35% were found to be eligible on the basis of an "A to F" grade point average below 3.10 and college entrance test scores.

3. Of the 9,469 graduates in the University's sample, 830 (8.77%) possessed the necessary entrance test pattern required under the University's admissions policies.

4. The 14.84% eligibility figure possesses a 95% confidence limit with a tolerance level of $\pm$ 0.72%.

5. The cumulative sample bias was 0.42%.

The California State University and Colleges

1. 34.96% of the high school graduates in the State University's sample were determined eligible to attend the California State University and Colleges.

2. Of the graduates determined eligible, 71.72% were determined eligible exclusively on the basis of a 3.20 or above "adjusted" grade point average regardless of college entrance test scores, while the remaining 28.28% were determined eligible on the basis of entrance test scores and "adjusted" grade point averages which were between 2.00 and 3.20.

3. Of the 9,972 graduates in the State University's sample, 524 (5.25%) enrolled for the American College Test (ACT) and 3,411 (34.21%) enrolled for the Scholastic Aptitude Test (SAT).

4. The 34.96% eligibility figure possesses a 95% confidence limit with a tolerance level of $\pm$ 0.94%.

5. The cumulative sample bias was 0.40%.

General

1. Sufficient high school graduate grade point average data could not be obtained to validate the grade point averages contained in the

Commission's graduate sample (grade point averages were not validated in any previous study).

2. Differences in the manner in which the segments coded and the College Entrance Examination Board reported entrance test scores precluded a rigorous validation of entrance test scores in the Commission's graduate sample (entrance test scores were not utilized and were therefore not validated in any previous study).

3. The College Entrance Examination Board was unable to provide statewide data regarding graduate test score experience for their Social Studies, Foreign Language, or Science achievement tests, and therefore no attempt at test score validation for these tests was undertaken.

II. RECOMMENDATIONS

1. The Regents of the University of California and the Trustees of the California State University and Colleges should review the findings and conclusions of this report and effect adjustments to their freshman admission requirements to render their eligibility ratios consistent with the guidelines expressed in the Master Plan for Higher Education in California (1960).

2. Representatives of the California State Department of Education, the University of California, and the California State University and Colleges should initiate a cooperative effort to appraise high school (and select Community College) counselors of the changes that may be effected to segmental freshman entrance requirements.

3. At least one year of changes in segmental admission requirements should be provided prior to implementation. The one-year lead time is necessary to permit college- and university-bound high school students an opportunity to adjust their high school curriculum to respond to such changes. The Commission believes that the earliest date that changes in segmental admission requirements should take effect is the fall term of 1978.

4. The findings of this study indicate that both segments place primary emphasis upon high school grade point average (or some derivative thereof) in determining applicant eligibility and that college entrance test scores play only a secondary role. The Commission recommends that each segment reconsider its present requirement that all applicants take college entrance tests and alter their standards to require test scores only in those instances where such information will be used to evaluate student eligibility.

5. Concurrent with the 1981 High School Eligibility Study, a separate study should be undertaken to review the 1960 Master Plan eligibility guidelines and make recommendations for change, where appropriate.

6. In anticipation of the 1981 High School Eligibility Study, segmental representatives and Commission staff should begin development of a study methodology not later than January 1, 1978.

7. The California State Department of Education should initiate a program of data collection for future high school graduates that can serve as a compatible information source and validating vehicle for future eligibility studies.

III. BACKGROUND

A Master Plan for Higher Education in California, 1960-1975 established guidelines for high school graduate eligibility at both the California State University and Colleges and the University of California. Under the Master Plan, the State University was urged to limit their eligibility "pool" to the upper 1/3 or 33 1/3% of the high school graduating class. The University was similarly urged to develop admission standards that would limit their eligibility pool to the upper 1/8 or 12 1/2% of the high school graduating class.

The 1976 High School Eligibility Study represents the fourth in a series of studies undertaken to determine the percent of high school graduates eligible to attend the California State University and Colleges and the University of California as first time freshmen students. The three prior studies were performed in 1955, 1961, and 1966. The findings of these studies appear below:

Percent of High School Graduates Determined Eligible

Study Year	California State University and Colleges	University of California
1955 (approximate)	44 %	15 %
1961	43.4	14.8
1966	35.2	14.6

Note that the percent figures cited in the 1955 study are approximations. In addition, the reader should be aware that the methodologies employed in each of the prior studies differed slightly and that their results may not be directly comparable.

As each eligibility study undertaken after 1960 was published, both the State University and Colleges and the University of California adjusted their admission standards in an attempt to meet the Master Plan's eligibility pool guidelines. (An expanded treatment of the three prior studies, their findings, and changes in segmental admission standards is enclosed as Appendix A.)

Although the Coordinating Council for Higher Education had intended that high school eligibility studies be performed every five years (this recommendation had been endorsed by University President Hitch

and State University and Colleges' Chancellor Dumke), a study was not performed in 1971. In 1973, however, with the passage of AB 770, Chapter 1187, creating the California Postsecondary Education Commission, attention was once again drawn to admission standards. Education Code Section 22712(18) directed the new Commission to:

> Review all proposals for changes in eligibility pools for admission to public institutions and segments of postsecondary education and . . . make recommendations to the Legislature, Governor, and institutions of postsecondary education.

In September 1974, Assembly Concurrent Resolution 150 was filed, restating the Master Plan guidelines for admission to the University of California and the California State University and Colleges at 12 1/2% and 33 1/3% respectively. The Commission's charge under Education Code Section 22712(18) was also restated.

The Report of the Legislative Analyst for the Budget Bill, Fiscal Year 1976-77, recommended that the Commission:

> Study the current admission standards of the University of California and the California State University and Colleges in relation to admission guidelines established in the Master Plan for Higher Education and report its findings and recommendations to the Joint Legislative Budget Committee by December 1, 1976.

These same recommendations appeared in the Supplementary Report of the Committee on Conference Relating to the Budget Bill, 1976-77 Fiscal Year.

As a result of these statements of Legislative intent, the Statutory Advisory Committee of the Commission concurred with Commission staff in May 1975 that a high school eligibility study be initiated. A Technical Advisory Committee on the Evaluation of High School Transcripts was appointed and met for the first time in August 1975.

IV. METHODOLOGY

Population Definition

In defining the 1974-75 graduating class population, the staff adhered as closely as possible to the definitions used in the 1966 Eligibility Study (1964-65 graduating class) to promote comparability. In the 1966 Study, the Coordinating Council for Higher Education solicited a random sample of high school graduate transcripts from all of California's "regular," and adult, evening and continuation public high schools. The current study utilized the same population definition, augmented to include students receiving high school diplomas from California Community Colleges (San Francisco City, San Diego City, etc.) and students receiving General Equivalency Diplomas (GED's). A comparison of the graduates included in the 1966 and 1976 Eligibility Studies appears in Figure I.

Please note that both studies covered the period July 1 to June 30, of 1964-65 and 1974-75 and that neither study included graduates from California's nonpublic high schools.

Figure I

Summary of High School Diploma Winners Included in the 1966 and 1976 High School Eligibility Studies

	1966 Study	1976 Study
"Regular" High Schools	YES	YES
Adult Schools	YES	YES
Continuation Schools	YES	YES
Evening Schools	YES	YES
Community Colleges	NO	YES
GED Awards	NO	YES
Private High Schools	NO	NO
Out-of-State Graduates	NO	NO

Sampling Procedure

In the 1966 Study, the Coordinating Council for Higher Education obtained lists of each school's graduating class - in alphabetical

order - and randomly sampled 10% of the graduates in each school. After identifying students to be sampled (by name), the Coordinating Council contacted each school and requested a copy of individual student transcripts. Approximately 22,300 transcripts were solicited during the course of the study.

In the 1976 Study the sampling procedure was altered and a smaller portion of the graduate pool surveyed. Reduction of the sample size from 10% to approximately 3.5% of the total high school graduating classes was effected due to the ability to draw valid conclusions from smaller samples and the workload implications for all parties.

Alteration of the sampling technique to survey approximately 3.5% of the State's high school graduates on a random basis (without regard to institution), rather than 10% of each high school's graduating class, was supported by the segments. Both changes were developed with the concurrence of Mr. Ken Hall - the Commission's statistical consultant - based upon standard statistical methodology and were reviewed by segmental representatives prior to implementation.

Sampling Problems

Two anomalies were introduced into the sampling procedure during execution of the Study.

Unsampled Schools - The first anomaly related to the number of schools to be included in the sample. Expansion of the eligibility pool to include high school graduates receiving diplomas from Community Colleges and GED certificates, and clerical errors by the Commission staff, resulted in more than 250 schools and approximately 22,000 high school graduates (of the nearly 300,000 total) being omitted from the initial graduate survey. This oversight resulted in 820 high school graduate transcripts (8.20% of the total pool) not being requested in the initial sampling request sent out by the Commission in January 1976.

Upon detecting the problem, the Commission staff conferred with Mr. Hall to develop a revised sampling technique that could be used to survey the "missing" schools and their graduates. In developing the revised procedure, a plan was prepared that permitted the new sample to be integrated with the prior sample so that the resultant pool would not, from a statistical standpoint, appear to have been the result of two separate surveying efforts. The procedure that was developed resulted in every twenty-seventh high school graduate being selected, on a random basis, from the previously unsampled schools for inclusion in the final sample.

The sampling program for schools omitted in the original transcript solicitation was executed in May 1976 and high school graduate transcripts so obtained were forwarded to the segments for eligibility

analysis. The staff believes this action fully corrected the sampling problem and that no systematic bias was introduced as a result of the initial school omissions.

A summary of the adjustments made to the high school graduate sample due to the omission of schools appears in Figure II.

Graduate Projections - The second and simultaneous anomaly introduced into the 1976 Eligibility Study developed from the manner in which the number of graduates from each high school was originally estimated. In the earliest days of the Study, the Commission staff attempted to determine the exact number of graduates produced by each of California's "regular" and adult, evening, and continuation public high schools.

After discussion with representatives of the Department of Education, the Commission staff was advised that, while total enrollment could be established by school, the number of high school graduates could only be determined precisely at the district level. In an attempt to determine the number of graduates from each high school, the Commission staff developed a procedure whereby high school graduate population was estimated on the basis of total school enrollment within each district. Separate procedures were used to predict graduates from "regular" high schools and adult, evening, and continuation high schools.

Using this technique and a random number computer program, the Commission staff selected specific transcripts, by number, from the high school graduate pool. School principals were notified by the staff of the exact transcript(s) that had been selected for inclusion in the sample and were requested to forward it (them) to the Commission.

Soon after the original ten thousand transcripts had been requested from the high schools in January 1976, the staff became aware of the possibility that some high schools might have been either over- or undersampled due to imprecision in the graduate estimating procedure. Subsequent investigation by the Commission staff established that the number of graduates in approximately 90% of the high schools had been either over- or underestimated, but that the magnitude of the discrepancy appeared to be minimal for most schools. Note that this condition applied solely to approximately 7,800 of the 10,000 transcripts requested in the January survey and was not repeated in the second surveying effort in May for previously omitted and non-responding high schools.

In an attempt to establish the exact degree of over- and undersampling introduced into the survey, the Commission staff contacted each high school and requested formal notification of the exact number of graduates. Of the more than 1,300 schools contacted, 100% replied.

The results of this survey, when compared to the Commission staff's original estimate of the number of high school graduates, supported the staff's earlier assumption that the sampling effort had not been seriously compromised through use of the high school graduate estimating algorithm. The magnitude of the error at each high school was such that all oversampling, and many undersampling conditions, could be either statistically disregarded or easily resolved without introducing biases into the resultant sample.

In the instances of high schools that had been oversampled (i.e., too many transcripts had been requested), staff limited its corrective action to a simple audit of transcripts from the affected schools to insure that school personnel had not exhausted their lists of graduates and started anew at the beginning. The transcripts from oversampled high schools were reviewed to detect and, if necessary, remedy this condition. In summary, corrective measures resolved the problem and acted to protect the resultant sample from bias introduced by oversampling.

In instances where high schools had been undersampled (i.e., too few transcripts had been requested), staff adopted a three part corrective procedure:

- for high schools that had not already responded to the Commission's request for transcripts (approximately 282 schools), contact each school and request them to forward transcripts on the basis of the corrected number of graduates.

- for high schools that had already responded to the Commission's request for transcripts, where the sampling estimate was within 27 of the actual number of graduates (approximately 187 schools), include the discrepancy between the actual and estimated number of graduates in a bias formula and initiate no further corrective action.

- for high schools that had already responded to the Commission's request for transcripts where the difference between the sampling estimate and the actual number of graduates was greater than 26 students (approximately 180 schools), hold the school in abeyance, compute the bias due to the undersampling condition (using standard statistical procedures), and resample the schools at a later date only if the collective bias in the entire study exceeds 1%.

The bias figure due to undersampling proved to be .30% and therefore no resampling was undertaken.

The over- and undersampling problems did, however, have an effect upon the size of the high school graduate sample and the percent of

the total graduate population addressed by the Study. While as indicated earlier, the omission of 262 high schools required the staff to augment the original 10,000 graduate sample by 820 additional graduates (to a total of 10,820), oversampling errors necessitated a reduction of 587 graduates from the total sample rendering a net sample size of 10,233 (see Figure II for an expanded treatment of the effects of these conditions upon the resultant sample size).

A second effect introduced by the undersampling problem was a reduction in the proportion of the high school graduating class sampled during the study. At the time the study was initiated it was the staff's intent to sample 100% of California's public high school graduates. The problems introduced by undersampling, however, succeeded in reducing this percent to 94.11%. Thus, the Commission's sample was assembled by surveying 94.11% of the high school graduating class. The staff sought advice from its statistical counsel regarding the severity of this problem and was advised that the problem could be (and was) ameliorated by a high response rate from the 94.11% sampled, that adjustments could be (and were) made to the resultant confidence limits to reflect the undersampling condition, and that the percent reduction did not pose a significant threat in terms of sample bias because the undersampling condition had been precipitated in a random fashion.

Response Rate

At the initiation of the Study, the staff, after due consultation with segmental representatives, decided upon a 95% response rate of transcripts requested as the minimum acceptable rate. Responses from high schools varied widely based in part upon the workload involved in randomly selecting, duplicating, and forwarding copies of transcripts (without unique student identifiers such as student name) to the Commission, uncertainty on the part of school administrators about the necessity for their institution's participation in the study, and concerns related to student record privacy laws.

Commission staff worked closely with representatives from the Superintendent of Public Instruction's Office and with nonresponding high schools to encourage timely response. Nonrespondent schools were repeatedly contacted by mail and telephone urging their cooperation. In a last minute effort to hasten institutional participation and achieve the 95% response rate, Commission staff, in October, made personal visits to a number of nonresponding high schools in the Southern California area to obtain graduate transcripts. These efforts resulted in achievement of the 95% response rate on October 19, 1976 when 9,772 transcripts had been received in the Commission's office.

At the October 20, 1976 meeting of the Technical Advisory Committee, Commission staff and segmental representatives agreed to suspend

Figure II

A Summary of the Adjustments Made to the Graduate Sample Due to the Omission of Graduates and Oversampling

	Initial Sample (January 1976)	Adjusted Sample (May 1976)	Net Change	Net Percent Change
Institutions Included in the Study	1,102	1,364	262	24%
Institutions Requested to Submit Transcripts	909	1,124	215	24%
Institutions Not Requested to Submit Transcripts*	193	240	47	24%
Total High School Graduates Estimated by Commission	273,096	278,693	--**	--**
Total High School Graduates Reported to Commission	--	296,121	+17,428	6.25%
Change in Sample Size Necessary to Adjust for the Omission of 257 Schools	10,000	10,820	+820	8.20%
Change in Sample Size Necessary to Adjust for Oversampled Schools	10,000	10,233	-587	2.33%

*The institutions shown in this column did not submit transcripts because they either awarded no diplomas during the 1974-75 academic year or were not requested to submit transcripts due to the size of their graduating class and the nature of the sampling procedure.

**Due to over- and undersampling, this does not apply.

---

subsequent transcript processing on November 1, 1976. On November 4, 1976 the Commission had received and forwarded to the segments 9,965 transcripts of the original 10,233 requested; this represents a 97.4% response rate. Of the 1,124 high schools requested to send transcripts, 1,097 (97.6%) did so.

Transcript Processing

High schools began submitting copies of graduate transcripts to the Commission immediately after the January solicitation letter was distributed. As each transcript was received, Commission staff audited the data to ensure that the submitting high school had complied with the Commission's reporting standards. Transcript audits included, but were not limited to:

- checking to make sure each graduate transcript was selected from the proper graduating class (1974-75)

- reviewing each transcript to make sure all of the data available for eligibility determination had been provided

- analyzing an entire high school's transcript submission to ensure that graduates had been selected in an apparently random fashion (e.g. not all males or females, not from the top grade point average ranks, etc. . . .)

- comparing the number of transcripts received from a high school to the number requested

In those instances in which a high school failed to comply with one or more of the reporting requirements established by the Commission, staff contacted the respondent, explained the error(s) detected, and requested submittal of transcripts in accordance with the described reporting standards.

In the process of editing transcript data submitted by the high schools, the Commission staff also identified the 587 transcripts inadvertently included in the transcript request due to oversampling (see also Sampling Problems - Graduate Estimating).

Transcripts successfully passing these audits were accumulated into "manageable" batches and forwarded to the segments for eligibility analysis. A description of the flow of high school transcripts to the segments appears in Figure III.

Upon receipt of transcripts from the Commission, each segment analyzed the data contained on each transcript and attempted to determine the eligibility of each graduate. Note that segmental eligibility determinations were based upon admission standards in effect during the 1974-75 academic year and were necessarily constrained by the volume and accuracy of data contained on each transcript (i.e., no follow-up calls were made to high schools to obtain clarifying information regarding a graduate). The Commission staff requested each segment to provide the Commission with a computer readable record for each high school graduate indicating the following information:

- eligibility for admission as first time freshman

- grade point average and segmental derivations of this figure

- Scholastic Aptitude Test (SAT) scores (if available)

- College Entrance Examination Board (CEEB) Achievement Test scores (if available)

Figure III

Schedule of Transcript Transmittal
to the University of California
and the California State University and Colleges

Date	Cumulative Total Sent to California State University and Colleges	Cumulative Total Sent to University of California
March 16, 1976	2,023	--
March 26, 1976	4,898	--
April 2, 1976	6,493	6,493*
June 9, 1976	7,884	7,884
August 10, 1976	8,261	8,261
August 27, 1976	8,470	8,470
September 14, 1976	8,750	8,750
September 24, 1976	8,985	8,985
October 12, 1976	9,529	9,529
October 18, 1976	9,772	9,772
October 29, 1976	9,931	9,931
November 4, 1976	9,965	9,965

* University representatives requested Commission staff to defer transmittal of transcripts for evaluation until a "large" quantity of transcripts had been received.

- American College Testing (ACT) scores (if available)
- other information pertinent to segmental eligibility determinations

Transcript and eligibility data related information, coded in computer readable format, began arriving from the segments in early October 1976. A schedule describing the receipt of this information appears in Figure IV.

Figure IV

Schedule of Receipt of Transcript Evaluation Data from the University of California and the California State University and Colleges

Date	Cumulative Total Received from California State University and Colleges	Cumulative Total Received from University of California
October 5, 1976	5,940	--
October 7, 1976	--	3,194
October 15, 1976	--	7,411
October 20, 1976	9,001	--
November 11, 1976	9,782	8,872
November 15, 1976	--	9,469
November 19, 1976	9,972	--

Procedures Used to Attempt to Validate the High School Graduate Sample

As computer coded transcript data was received from the segments, Commission staff undertook validation of the high school graduate transcript sample. The intent of validating the graduate sample was to demonstrate that the high school grade point averages and test scores in the Commission's sample were consistent with the grade point averages and test scores exhibited by California's entire 1974-75 high school graduating population.

In validating the high school graduate sample three separate sets of tests were performed:

- the percent of graduates taking the SAT, ACT, and CEEB Achievement tests in the sample were compared to the statewide average participation rate
- the test scores of high school graduates in the sample enrolling for the SAT (Math, Verbal, and Total), ACT (Composite), and CEEB English tests were compared to statewide test scores
- the grade point averages of high school graduates from selected regional areas in the sample were compared to the grade point averages of all graduates from the same regional areas

Validation procedures were tailored to the particular transcript data used by the segments to establish eligibility. A summary of the validation procedures used for each segment appears in Figure V.

Figure V

Validation Procedures Used*

	California State University and Colleges	University of California	Source of Data
ACT Composite	Yes	No	CSUC
SAT Math	No	Yes	UC
SAT Verbal	No	Yes	UC
SAT Total	Yes	Yes	UC
CEEB English	No	Yes	UC
Grade Point Average	Yes	Yes	CSUC

* Validation is defined as:

- comparison of entrance test participation rates
- comparison of entrance test score and grade point average distributions
- comparison of entrance test score and grade point average means

Validation of Graduate Grade Point Average

The staff attempted to validate the grade point averages in the sample to ensure that they were representative of the statewide population (grade point average validation was not performed in any previous studies). To do so, statewide or regional grade point average data was necessary to serve as a comparison base. Beginning in June 1976, Commission staff initiated inquiries to potential sources of 1974-75 high school graduate grade point averages. A list of the organizations and persons contacted in search of this data appears in Appendix D.

The search for a source of statewide or regional grade point average data extended over a period of months and, in the end, proved fruitless. While 29,288 high school graduate grade point averages were obtained from the San Diego, Santa Clara, Fresno, and Ventura Regional Data Centers in the hope that they could be used to validate the Commission's sample, major disparities in the definitions used by these centers for "graduate" precluded meaningful comparisons of the actual and sample data (for example, the Ventura Regional Center defined high school graduates as seniors enrolled in the 1975 spring term who did not reenroll in the 1975 fall term; they assumed the "missing" seniors had all graduated).

In sum, a statewide search, conducted over a period of months, involving a multitude of organizations associated with secondary school education, failed to identify a single source of grade point average data that could be used to validate the Commission's sample. The absence of such data, while lamentable, should not be interpreted to mean that the grade point averages contained in the Commission's sample are in any way biased, but rather that no yardstick could be located by which to measure the integrity of the sample's grade point average data.

Validation of College Entrance Examination Test Data

In validating test score information, the staff had originally intended to submit the Commission's test score data to a rigorous statistical analysis to insure the integrity of the sample. Upon undertaking this task the staff soon discovered that there existed a number of statistically significant and irreconcilable inconsistencies between the source and character of the test score data in the Commission sample and that maintained by the College Entrance Examination Board. A summary of the problems encountered follows:

- The Commission's graduate sample was constructed exclusively of public high school graduates but the College Entrance Examination Board (CEEB) maintained test score data for both public and private high school graduates (private high

school graduates represent approximately 7.1% of California's 1975-76 high school graduates).

- The staff was unable to obtain information from CEEB representatives regarding the differences in test score experience and/or participation rates (if any) between public and private high school graduates.

- CEEB representatives were unable to provide Commission staff with statewide test score and participation rate data for their Foreign Language, Science, or Social Studies Achievement tests. Lacking this information, Commission staff was unable to establish the validity of test score data for these three Achievement test categories.

Additional problems in validating test score data arose from differences in the way in which high schools coded, and segments evaluated, select test score information. These anomalies are noted in the text where they are applicable. A summary of the validation results for each test follows:

1. ACT Composite - Source, California State University and Colleges

	Graduates Enrolling for the Test	Participation Rate	Mean Score	Standard Deviation
Statewide	17,925	5.34%	18.2	5.7
CPEC Sample	524	5.25%	17.9	6.0
Difference	--	-0.09%	-1.65%	--

The staff analyzed the difference between the means of the two sets of scores and established that the difference was statistically nonsignificant.

2. SAT Math - Source, University of California

	Graduates Enrolling for the Test	Participation Rate	Mean Score	Standard Deviation
Statewide	106,776	N/A	473	117
CPEC Sample	2,487	N/A	484	118
Difference	--	--	+2.33%	--

Participation rate for the SAT Total was judged to be a more accurate indicator of actual participation rate.

3. SAT Verbal - Source, University of California

	Graduates Enrolling for the Test	Participation Rate	Mean Score	Standard Deviation
Statewide	106,782	N/A	435	110
CPEC Sample	2,481	N/A	443	108
Difference	--	--	+1.84%	--

Participation rate of the SAT Total was judged to be a more accurate indicator of actual participation rate.

4. SAT Total - Source, University of California

	Graduates Enrolling for the Test	Participation Rate	Mean Score	Standard Deviation
Statewide	106,786	31.79%	908	207
CPEC Sample	2,929	30.93%	926	207
Difference	--	-.86%	+1.98%	--

The +1.98% mean score difference in SAT Total was originally judged by the staff to be higher than expected. Subsequent staff investigation disclosed that the University had coded the highest student SAT in those instances in which a student elected to take the SAT more than once. The College Entrance Examination Board does not report the highest score but rather the most recent score in those instances in which a student takes the SAT more than once. This difference in reporting conventions applies to SAT Math, SAT Verbal, and SAT Total score differences.

5. CEEB English - Source, University of California

	Graduates Enrolling for the Test	Participation Rate	Mean Score	Standard Deviation
Statewide	30,773	9.16%	508	103
CPEC Sample	944	9.97%	514	106
Difference	--	+.81%	+1.18%	--

The +1.18% mean score difference was originally judged by the staff to be slightly higher than anticipated but the difference was statistically nonsignificant. Subsequent staff investigation disclosed that an undetermined number of high schools had substituted the CEEB Literature test score for the CEEB English score where no CEEB English score was available.

While the staff's original intent to perform a statistically rigorous evaluation of the test score data in the Commission sample did not prove as fruitful as had been desired, the analysis that has been performed does not, in the staff's judgment, disclose any major discrepancies in the test scores and/or participation rates between the Commission's sample and the available statewide data. While this analysis is admittedly less complete than desired, it does substantiate the staff's belief that the test score data within the graduate sample is representative of the experience of California's 1974-75 public high school graduating class and does not compromise the integrity of the Study's findings with regard to segmental eligibility rates.

Eligibility Computations - The Conceptual Framework

In the three studies that have preceded this one, the determination of student eligibility has been a relatively simple matter. In prior studies student eligibility was established exclusively on the basis of grade point average or some derivative thereof. In the 1966 Eligibility Study, for example, if a student possessed an "adjusted" grade point average or 3.0 or greater, he/she was determined eligible to attend the University of California. A student possessing a grade point average below 3.0 was judged to be ineligible.

Changes in admission requirements (by both segments) immediately prior to, and soon after the 1966 Eligibility Study, resulted in the introduction of college entrance examination tests as a factor--along with student grade point average--in determining student eligibility. These changes in admission policy increased the complexity of the 1976 Study (when compared to the 1966 Study) because, while every student possessed a grade point average, only a small percent of high school graduates enrolled for college entrance tests. For example, only 8.77% of the high school graduates in the Commission's sample took the tests necessary for admission to the University of California. Of the students who took tests required for admission to the State University and Colleges, 34.21% took the SAT and 5.25% took the ACT.

Segmental representatives and Commission staff agreed upon procedures for each segment to use in evaluating the transcripts within the Commission's sample. Each segment's admissions standards include a provision that applicants with adjusted high school grade point averages above a certain level (3.20 and above for the California State University and Colleges and 3.10 and above for the University of California) are admissible regardless of test scores. There was agreement that applicants with these "high" adjusted grade point averages would be considered eligible for purposes of the study whether or not test scores were available. This approach increased the

number of students for whom eligibility could be determined without compromising the validity of the resultant eligibility determinations.

A description of the procedures used in determining segmental eligibility for the purpose of this study follows:

1. University of California

Freshman applicants to the University of California must fulfill a subject requirement (specific course work), a scholarship requirement (minimum grades in specified subjects), and/or an entrance examination requirement (certain tests and minimum test scores) in order to be deemed eligible. (An excerpt from the University's Undergraduate Admissions Packet describing specific freshman entrance requirements is enclosed as Appendix B.)

Three admission categories were utilized to group the University's admission standards. High school graduates were either (1) determined eligible and assigned to one or another of these three categories; or (2) determined ineligible after analysis of their transcript data. (A summary of the admission categories for the University appears in Figure VI.)

Note that these categories are not mutually exclusive and an applicant may qualify within more than one admission category. Note also that applicants qualifying under Category I need not have taken an entrance test (for the purpose of the Eligibility Study only) and that no minimum "A to F" grade point average must be achieved to qualify an applicant for acceptance under Category III.

2. California State University and Colleges

Freshman applicants to the California State University and Colleges must possess a minimum "adjusted" grade point average of 2.00 to be considered eligible (adjusted grade point average is based upon work completed in the last three years of high school exclusive of physical education and military science). Applicants possessing an adjusted grade point average below 2.00 are considered ineligible regardless of test score. As explained previously, applicants with an adjusted grade point average of 3.20 and above are considered eligible regardless of test score, but the test score must be on file.

All applicants must enroll for either the ACT or SAT entrance examination. Eligibility is determined through the computation of an "eligibility index," an index computed by one of the following formulae:

- for applicants taking the ACT entrance examination;
  Eligibility Index = GPA x 200 + 10 x ACT Score

. for applicants taking the SAT entrance examination;
Eligibility Index = GPA x 800 + SAT Score

Applicants enrolling for the ACT entrance test must achieve a minimum eligibility index of 741 to be considered eligible. Applicants enrolling for the SAT entrance test are determined eligible if they achieve an eligibility index of 3,072 or greater. All applicants possessing an adjusted grade point average of 3.20 or greater are considered eligible regardless of their test score results. (An excerpt from the California State University and Colleges' Applications and Information manual describing freshman eligibility requirements is enclosed as Appendix C.)

Figure VI

University of California
Admission Categories

Category I - to be considered eligible in this category an applicant must:

- possess an "A to F" grade point average of 3.10 or greater in the required course work
- have no credit deficiencies in the required course work
- have no D or F grades in the required course work

Category II - to be considered eligible in this category an applicant must:

- possess an "A to F" grade point average between 3.00 and 3.09 in the required course work
- have no credit deficiencies in the required course work
- have no D or F credit deficiencies in the required course work
- enroll for the required entrance tests* and achieve a score of 2,500 or more

Category III - to be considered eligible in this category an applicant must:

- enroll for the required entrance tests*
- achieve a score of 1,100 or more on the SAT
- achieve a score of 1,650 or more on the CEEB Achievement Tests
- achieve a minimum score of 500 on each of the three CEEB Achievement Tests

* The required entrance tests are:

SAT Verbal and SAT Mathematics
CEEB English
CEEB Mathematics or CEEB Science
CEEB Foreign Language or CEEB Social Studies

V. FINDINGS

Eligibility Computations for the University of California

The University of California returned 9,469 graduate transcripts, with appropriate eligibility coding, to the Commission. Of the 9,469 graduate transcripts returned, 1,405 (14.84%) were determined to be eligible to attend the University of California. A summary of the eligibility analysis of these graduates appears in Figure VII.

Figure VII

Summary of Graduate Eligibility
As a Function of Eligibility Category
for the University of California

Admissions Category	Graduates Determined Eligible	Percent of Eligible Graduates	Percent of Total Sample Determined Eligible
Category I	1,386	98.65%	14.63%
Category II	9	0.64	0.10
Category III	10	0.71	0.11
Total	1,405	100.00%	14.84%

The distributions of graduates determined eligible as a function of "adjusted" grade point average and "A to F" grade point average appear in Figures VIII and IX respectively.

Figure VIII

Distribution of Eligible Graduates by
Adjusted Grade Point Average
for the University of California

Adjusted Grade Point Average	Category I	Category II	Category III	Total Eligible	Percent of Eligible	Percent of Sample
Below 2.00	13	0	0	13	0.92%	0.13%
2.00-2.49	0	1	1	2	0.14	0.02
2.50-2.99	55	4	2	61	4.34	0.64
3.00-3.49	522	4	3	529	37.65	5.57
3.50-4.00	796	0	4	800	56.95	8.48
Total	1,386	9	10	1,405	100.00%	14.84%

Figure IX

Distribution of Eligible Graduates by
"A to F" Grade Point Average
for the University of California

"A to F" Grade Point Average	Category I	Category II	Category III	Total Eligible	Percent of Eligible	Percent of Sample
Below 2.00	0	0	0	0	0.00%	0.00%
2.00-2.49	0	0	1	1	0.07	0.01
2.50-2.99	0	0	4	4	0.28	0.04
3.00-3.49	434	9	1	444	31.60	4.69
3.50-4.00	952	0	4	956	68.05	10.10
Total	1,386	9	10	1,405	100.00%	14.84%

Eligibility Computations for the California State University and Colleges

The California State University and Colleges returned 9,972 graduate transcripts to the Commission with information coded describing graduate eligibility. Of the 9,972 graduate transcripts returned, 3,486 (34.96%) were determined to be eligible to attend the California State University and Colleges. An expanded description of the characteristics of the State University eligibility pool appears in Figures X and XI.

Figure X

Summary of Graduate Eligibility
As a Function of Eligibility Category
for the California State University and Colleges

	Graduates	Percent of Eligible	Percent of Total Sample
Eligible on the Basis of Grade Point Average (3.20 and Above)	2,500	71.72%	25.07%
Eligible on the Basis of Eligibility Index Score	986	28.28	9.89
Total	3,486	100.00%	34.96%

Figure XI

Distribution of Eligible Graduates by
Adjusted Grade Point Average
for the California State University and Colleges

Adjusted Grade Point Average	Eligible on Grade Point Average Alone[1]	Eligible on Basis of Eligibility Index	Total Eligible	Percent of Eligible	Percent of Sample
Below 2.0	0	0	0	0.00%	0.00%
2.00-2.49	0	5	5	.14	.05
2.50-2.99	0	404	404	11.59	4.05
3.00-3.49	1,155	577	1,732	49.69	17.37
3.50-3.40	1,345	0	1,345	38.58	13.49
Total	2,500	986	3,486	100.00%	34.96%

1. Grade Point Average of 3.20 and above.

Sample Confidence Limits and Tolerance

At the outset of the study the Commission staff and segmental representatives agreed that the results of the study should possess a confidence level of 95% with a tolerance of ± 1%. Put differently, the staff desired to be able to certify that it was 95% sure that each segment's eligibility figure was within ± 1% of the value evolving from the study.

Using the 14.84% eligibility figure obtained for the University of California, and the 95% confidence level figure, the staff computed the tolerance to be ± 0.72%, or well within the tolerance established for the study.

Using the 34.96% eligibility figure for the California State University and Colleges and the 95% confidence level, the staff computed the tolerance figure to be ± 0.94%.

Sample Bias

Sample Bias Due to Nonresponses by High Schools - Of the 1,124 high schools requested to submit transcripts, 28 schools, representing 6,653 graduates (246 transcripts), did not respond to the Commission's request

for transcripts in sufficient time for segmental evaluation of eligibility. The sampling bias attributed to nonresponse was computed by assuming a worst case estimate that the nonrespondents would have had a 20% eligibility rate for the University of California and a 40% eligibility rate for the California State University and Colleges. Using these worst case estimates, the sample bias due to nonresponding high schools was computed to be 0.12% for the University and 0.12% for the State University and Colleges.

Sample Bias Due to Undersampling - As noted earlier, 278,693 of the 296,121 graduates (94.1%) were sampled correctly during the course of the study. The 17,428 graduates improperly surveyed and undersampled due to errors in the original sampling algorithm represent a potential source of bias impacting upon sample validity. The bias due to undersampling was computed using worst case estimates of 20% and 40% for the University of California and the California State University and Colleges respectively. Using these figures, the bias due to undersampling for the University of California was determined to be 0.30%. The undersampling bias attributed to the State University's sample was computed as 0.30%.

Cumulative Sample Bias - The cumulative sample bias due to undersampling and nonresponse was computed using the same 20% and 40% worst case estimates. Using these estimates, the cumulative sample bias is 0.42% for the University of California and 0.41% for the California State University and Colleges.

APPENDIX A

A SUMMARY OF THE 1955, 1961, AND 1966 HIGH SCHOOL ELIGIBILITY STUDIES

APPENDIX A

A Summary of the 1955, 1961, and 1966 High School Eligibility Studies

In order to verify the proportion of high school students eligible for admission to the University of California and the California State University and Colleges, periodic evaluations have been undertaken over the past 20 years to analyze transcripts of public high school graduates. Modifications of admission standards have been made by both segments as a result of the findings of these studies.

1955 Study - This study determined that approximately 44% of high school graduates were eligible for admission to the California State University and Colleges (State Colleges), and about 15% were eligible to attend the University of California. Following publication of the report of the committee which had been reviewing the correlation between high school grades, entrance test scores, and academic success of students admitted to California's public colleges and universities, the State Board of Education increased freshman admission requirements for the California State University and Colleges from 5 Carnegie units of "A" or "B" grades in the last three years of high school to 7 Carnegie units of "A" or "B" grades in the last three years of high school in subjects other than physical education or military science. The Board amended the prior alternate means of eligibility (attaining a score at the twentieth percentile or better on a college entrance test) to include completion of 5 Carnegie units of "A" or "B" grades in the last three years of high school (excluding physical education and military science).

In 1956 the University modified its admission requirements, basically unchanged since 1931, providing that the previous requirement of a "B" average in a required pattern of courses taken in the last three years of high school, have the added qualification that no grades lower than "C" would be acceptable in the required subjects.

1960 Recommendations - In 1959-60, the Technical Committee on Selection and Retention of Students reported that approximately 50% of public high school graduates were eligible for admission to the California State University and Colleges, and 15% were eligible for admission to the University of California. The recommendation of this Committee to the Master Plan Survey Team was that these percent figures be reduced to 33 1/3 and 12 1/2 respectively. This recommendation was accepted by the Team, and incorporated in their report to the President of the University of California, Chancellor of the California State University and Colleges, Superintendent of Public Instruction, Legislature, and the Governor.

1961 Study - Following adoption of the Master Plan Survey Team's report, the 1961 High School Transcript Study was conducted by the "Joint Statistical Inquiry Concerning Eligibility for Admission" to the University of California and the California State University and

Colleges. The study was implemented as a result of the following recommendations in the Master Plan for Higher Education in California, 1960-75:

> In order to raise materially standards for admission to the lower division, the State Colleges select firsttime freshmen from the top one-third (33 1/3 percent) and the University from the top one-eighth (12 1/2 percent) of all graduates of California public high schools.

The sample of transcripts chosen for the 1961 study consisted of approximately 10% of all California public school graduates during the academic year 1960-61. These 15,600 transcripts represented graduates from both day and adult evening schools and were selected randomly from lists of graduates supplied by the schools. An analysis of the transcripts indicated that 43.4% of the students were eligible for admission to the California State University and Colleges, while 14.8% were eligible to attend the University of California.

In response to the Study's findings, admissions criteria were adjusted in an attempt to conform to the Master Plan recommendation. The University increased admission requirements for fall 1962 by dropping three alternate means of eligibility determination which had accounted for 2.2% of high school students being found eligible in the 1961 study. By extending the "no grade less than C in required subjects" provision to courses taken in the 9th grade, the University eliminated 0.1% of those students who would have been eligible in the 1961 study.

More extensive revisions were enacted by the California State University and Colleges. Changes were made to relatively weight the grade point average and performance on a college entrance test (SAT and ACT) to develop an eligibility index. Admissions based on the eligibility index became effective in fall 1965.

1966 Study - One year later, in 1966, both segments reported to the Coordinating Council for Higher Education on the results of their evaluation of some 21,739 high school transcripts, representing a 9.75% random sample of all 1964-65 graduates of California public high schools. For the California State University and Colleges, 35.16% of the transcripts indicated admission eligibility. This was a considerable improvement over conditions revealed in the 1961 study, but still not within the 33 1/3% Master Plan recommendation. The University of California found 14.58% of the transcripts indicated student eligiblity for admission.

To accomplish an increase in admission standards at the University of California, the Board of Regents adopted procedures whereby all freshmen applicants for fall 1968 and thereafter would be required to submit scores from the Scholastic Aptitude Test and three

Achievement Tests of the College Entrance Examination Board. The Regents also reduced by half, the number of required courses which a student could repeat in order to meet the scholarship average of "B" or better. Additionally, no such repeated courses would be counted as receiving a grade of "C" or higher, regardless of the actual grade received by the student.

An adjustment was also made to the California State University and Colleges' eligibility index to reflect the Master Plan guidelines.

APPENDIX B

EXCERPT FROM THE UNIVERSITY OF CALIFORNIA'S

UNDERGRADUATE ADMISSIONS PACKET

DESCRIBING FRESHMAN ELIGIBILITY REQUIREMENTS

ADMISSION AS A FRESHMAN

The University defines a "freshman applicant" as a student who has graduated from high school but who has not enrolled since then in a regular session* in any collegiate-level institution. If this definition does not apply to you, you must meet the requirements for admission as an advanced standing student.

Freshman Admission Requirements To be eligible for admission to the University as a freshman you must meet the Subject Requirement, the Scholarship Requirement, and the Examination Requirement, which are described below.

If you are not a resident of California you must also meet certain additional requirements that are discussed in the following pages. As a nonresident applicant you must show exceptional academic promise in order to qualify for admission.

Subject Requirement You must complete certain high school subjects with at least a grade of C in each semester of each course. (Counselors often refer to this as the "a to f" requirement.) If you are a graduate of a California high school, these courses must appear on a list that your high school principal has certified meet the course descriptions below and that he has placed on file with the Director of Admissions. If you are a graduate of an out-of-state high school, the Office of Admissions will determine if your courses are equivalent.

a. History 1 year
One year of United States history, or one-half year of United States history and one-half year of civics or American government.

b. English 3 years
Three years of English—composition, literature, oral expression. Not more than one will be accepted from the ninth grade.

c. Mathematics 2 years
Two years of mathematics—elementary algebra, geometry, intermediate and advanced algebra, trigonometry, calculus, elementary functions, matrix algebra, probability, statistics, or courses combining these subjects. Nonacademic courses such as arithmetic and business mathematics may not be used.

d. Laboratory Science 1 year
A year course in one laboratory science, taken in the tenth, eleventh, or twelfth grade.

e. Foreign Language 2 years
Two years of one foreign language. Any foreign language with a written literature may be used.

f. Advanced Course 1 or 2 years
This requirement must be satisfied by one of the following:

Mathematics
A total of one year of advanced mathematics—intermediate algebra, trigonometry, or other comparable mathematics courses.

Foreign Language
Either an additional year in the same language used for "e" above or two years of a second foreign language.

Science
A year course in any laboratory science completed subsequent to the laboratory science used for "d" above.

Elective Courses
The ten to eleven units in the subjects listed above are the only units used in computing the grade point average for the scholarship requirement below. However, a total of fifteen high school credits* is required for admission to the University. The elective units provide an excellent opportunity for you to strengthen your preparation for University curricula. Additional courses in mathematics are essential in the preparation for majors in engineering, mathematics, the sciences and many other fields of study. A fourth year of English, including composition skills, is highly recommended for all students.

* This does not include attendance at a summer session immediately following high school graduation.

Scholarship Requirement Not only must you earn at least a C in each of the courses required for admission, you must also earn an overall average of B in those on the list which you take after the ninth grade. If you are a nonresident applicant, your grade-point average in the required subjects must be 3.4 or higher. (A 3.0 average is equal to a B average.)

In determining the required B average, the University will use a semester grade of A in one course to balance a semester grade of C in another. Grades you received in courses taken in the ninth grade or earlier are not used in determining your scholarship average. The grades that appear on your official high school transcript, including those earned in accelerated and advanced courses, are the grades the University will use in evaluating your record. Grades are counted on a semester basis unless a school gives only year grades.

You may repeat up to a total of two semester courses, in which you received a grade of D or lower, in order to meet the subject and scholarship requirements. The grades you earn in repeated courses, however, will not be counted higher than C in determining your scholarship average. If the courses you repeat were taken before the ninth grade, they will be treated as if you were taking them for the first time.

Examination Requirement† All freshman applicants must submit scores from the College Entrance Examination Board tests listed below. If you are applying for admission to the fall quarter, you should take the tests no later than January of your senior year. The following tests are required:

1. Scholastic Aptitude Test (The verbal and mathematics scores you submit from this test must be from the same sitting.)
2. Three Achievement Tests, which must include (a) English Composition, (b) one from among the social studies or one from among the foreign languages, and (c) one from mathematics or one from among the sciences.

If you are a California applicant and your scholarship average in the required high school subjects is from 3.0 to 3.09 inclusive, you must earn a total score of 2,500 or higher in these tests. If your scholarship average is 3.1 or higher, you must take the CEEB tests, but your scores will not be used to determine your eligibility.

Admission by Examination Alone If you do not meet the scholarship and subject requirements for admission, you can qualify for admission as a freshman by examination alone. To do so, you must take the same CEEB tests discussed above but must earn higher scores. The required total score on the Scholastic Aptitude Test is 1,100, and you must earn at least 500 on each Achievement Test. If you are a California applicant, your total score on the three Achievement Tests must be 1,650 or higher. If you are a nonresident applicant, your total score on the three Achievement Tests must be 1,730 or higher. High school graduation is also required for students who qualify for admission by examination.

* A year course in high school is equivalent to one credit.
† This requirement does not apply to applicants who have completed at least 12 quarter or semester units of transferable college credit subsequent to high school graduation.

APPENDIX C

EXCERPT FROM THE CALIFORNIA STATE UNIVERSITY AND COLLEGES' APPLICATIONS AND INFORMATION BROCHURE DESCRIBING FRESHMAN ELIGIBILITY REQUIREMENTS

APPENDIX C

Academic Requirements

First-Time Freshman Applicants (California High School Graduates and Residents): An applicant who is a graduate of a California high school or a legal resident for tuition purposes must have a grade point average and composite score on the ACT or total score on the SAT which places him among the upper one-third of California high school graduates. The table below is used in determining the admissions eligibility of such applicants. Grade point averages are based on work completed in the last three years of high school, exclusive of physical education and military science.

TABLE FOR COMPUTING THE ELIGIBILITY INDEX†

G.P.A.	2.00*	2.10	2.20	2.30	2.40	2.50	2.60
A.C.T. Score	35	33	31	29	27	25	23
S.A.T. Score	1472	1392	1312	1232	1152	1072	992
G.P.A.	2.70	2.80	2.90	3.00	3.10	3.20**	
A.C.T. Score	21	19	17	15	13	11	
S.A.T. Score	912	832	752	672	592	512	

*Below 2.00 not eligible.
**Above 3.20 eligible with any score.
†Eligibility Index = GPA X 200 + 10 (ACT composite) – minimum acceptable index 741.
Eligibility Index = GPA X 800 + SAT total – minimum acceptable index 3072.

APPENDIX D

ORGANIZATIONS AND INDIVIDUALS CONTACTED BY COMMISSION STAFF TO OBTAIN GRADE POINT AVERAGE DATA FOR 1974-75 HIGH SCHOOL GRADUATES

APPENDIX D

Organizations and Individuals Contacted by
Commission Staff to Obtain Grade Point
Average Data for 1974-75 High
School Graduates

State Department of Education

- Dale Carlson, Office of Program Evaluation and Research
- Marshall Fels, Office of Program Evaluation and Research
- Rex Fortune, Associate Superintendent and Program Manager for Secondary Education Programs
- Herbert Adams, Data Processing Services

Sacramento Unified School District

- Holland Payne, Director, Educational Evaluation and Quality Control

Los Angeles Unified School District

- John Wright, Director, Research and Evaluation
- David Bower, Counseling and Psychological Services

Salinas Union High School District

- John Carolan, Assistant Superintendent, Instructional Services
- Frederick Greaves, Research Assistant

Riverside Unified School District

- Mabel Purl, Research and Evaluation

San Juan Unified School District

- Phillip Oakes, Director, Research and Evaluation
- Joanne Schaad, Research and Evaluation

San Francisco Unified School District

- Mr. Loo, Planning and Evaluation
- Mr. Callaway, Supervisor, Secondary Education

California Association on Research in Education

- Garford Gordon, Director, Research

Fresno Unified School District

- Heidi Muncy, Assistant Director, Educational Research

Sacramento Regional Educational Data Center

- Robert Branch, Director

Ventura Regional Educational Data Center

- Jack Totheroh, Director

Santa Clara Regional Educational Data Center

- Marilyn Carson, Director

Fresno Regional Educational Data Center

- Ralph Richey, Director

Riverside Regional Educational Data Center

- William Nuckols, Director

San Diego Regional Educational Data Center

- Ralph Cook, Director
- Al Maline, Data Processing

Los Angeles County Department of Education

- Kenneth Blanche, Program Evaluation, Research and Pupil Services